

## AMENDMENT

### Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

### Listing of Claims:

Please amend claims 11 and 18 as follows, without prejudice.

Please cancel claims 16 and 17, without prejudice.

1. (Previously presented) A method comprising:

displaying a set of one or more input objects, the input objects to receive one or more input decisions including an indication of a target retirement age, an indication of a target level of investment risk that is constrained to be within a feasible set of risk that is attainable by a particular investor via a set of financial products that are available to the particular investor for investment, and an indication of a retirement income goal;

displaying a set of one or more output values, the set of output values including an indication of the probability of achieving the retirement income goal and an indication of the most likely retirement income in current dollars based upon the one or more input decisions and a recommended set of financial products selected from the set of financial products that are available to the particular investor for investment;

receiving an updated input decision via one or more of the input objects;

determining one or more new output values based upon the updated input decision; and

refreshing the set of one or more output values to reflect the one or more new output values.

2. (Original) The method of claim 1, wherein a subset of the one or more input objects and a subset of the one or more output values are displayed concurrently on the same screen.

1 3. (Original) The method of claim 1, wherein the target retirement age is constrained to be  
2 feasible.

1 4. (Original) The method of claim 1, further comprising displaying the recommended set of  
2 financial products, the recommended set of financial products conditional on the one or  
3 more input decisions.

1 5. (Original) The method of claim 4, further comprising displaying a recommended  
2 allocation of wealth among those of the financial products in the recommended set of  
3 financial products.

1 6. (Original) The method of claim 5, wherein the recommended allocation of wealth is  
2 conveyed graphically.

1 7. (Previously presented) A method of providing an indication to a user of a probability of  
2 achieving a financial goal, the method comprising:

3 receiving a retirement income goal from the user;

4 receiving one or more input decisions from the user, including an indication of a  
5 target retirement age and an indication of a target level of investment risk, upon which a  
6 probability distribution is dependent, the probability distribution representing a set of  
7 possible future portfolio values based upon the one or more input decisions, the target  
8 level of investment risk being constrained to be within a feasible set of risk that is  
9 attainable by a particular investor via a set of financial products that are available to the  
10 particular investor for investment;

11 determining the probability of achieving the retirement income goal; and

12 displaying the probability of achieving the retirement income goal to the user.

1 8. (Original) The method of claim 7, wherein the target level of risk is received via a  
2 graphical input mechanism.

1 9. (Original) The method of claim 7, further comprising displaying a recommended set of  
2 financial products and a recommended allocation of wealth among the financial products  
3 in the set of recommended financial products.

1 10. (Original) The method of claim 7, wherein the probability of achieving the retirement  
2 income goal is graphically communicated.

1 11. (Currently amended) A method comprising:  
2 concurrently displaying  
3 input objects in a first portion of a screen, the input objects configured to  
4 receive one or more input decisions including a level of risk, and  
5 a set of one or more output values in a second portion of the screen, the set  
6 of output values including the short-term risk associated with reaching a financial  
7 goal;  
8 receiving an updated input decision via one of the depicted input objects;  
9 determining one or more new output values based upon the updated values; and  
10 updating the second portion of the screen to reflect the one or more new output  
11 values.

12 12. (Original) The method of claim 11, wherein the short-term risk comprises an indication  
13 of the potential financial loss that might occur with a 5% probability within the next 12  
14 months.

1 13. (Original) The method of claim 11, wherein the one or more output values are  
2 graphically communicated.

Claims 14-17 (Canceled).

1 18. (Currently amended) A method comprising:

2 displaying one or more input objects in a first portion of a first screen, the input  
3 objects configured to receive one or more input decisions including a financial goal, from  
4 which a recommendation is determined, the recommendation including a recommended  
5 allocation of wealth among a set of available financial products that are available to a  
6 particular investor for investment; and

7 displaying a set of output values in a second portion of the first screen, the set of  
8 output values including a probability of achieving the financial goal based upon the  
9 recommendation; and

10 ~~graphically depicting the recommended allocation of wealth among the set of~~  
11 ~~available financial products in a second screen.~~

1 19. (Original) The method of claim 18, wherein the one or more input decisions include an  
2 indication of a target retirement age.

1 20. (Previously presented) An apparatus comprising:

2 means for displaying a set of one or more input objects, the input objects to  
3 receive one or more input decisions including an indication of a target retirement age, an  
4 indication of a target level of investment risk that is constrained to be within a feasible set  
5 of risk that is attainable to a particular investor via a set of financial products that are  
6 available to the particular investor for investment, and an indication of a retirement  
7 income goal;

8 means for displaying a set of one or more output values, the set of output values  
9 including an indication of the probability of achieving the retirement income goal and an  
10 indication of the most likely retirement income in current dollars based upon one or more

11 input decisions and a recommended set of financial products selected from the set of  
12 financial products that are available to the particular investor for investment;

13 means for receiving an updated input decision via one or more of the input  
14 objects;

15 means for determining one or more new output values based upon the updated  
16 input decision; and

17 means for refreshing the set of one or more output values to reflect the one or  
18 more new output values.

1 21. (Original) The apparatus of claim 20, further comprising a means for displaying the  
2 recommended set of financial products, the recommended set of financial products  
3 conditional on the one or more input decisions.

1 22. (Original) The apparatus of claim 21, wherein the recommended allocation of wealth is  
2 conveyed graphically.

1 23. (Previously presented) A method comprising the steps of:

2 a step for displaying a set of one or more input objects, the input objects to  
3 receive one or more input decisions including an indication of a target retirement age, an  
4 indication of a target level of investment risk that is constrained to be within a feasible set  
5 of risk that is attainable by a particular investor via a set of financial products that are  
6 available to the particular investor for investment, and an indication of a retirement  
7 income goal;

8 a step for displaying a set of one or more output values, the set of output values  
9 including an indication of the probability of achieving the retirement income goal and an  
10 indication of the most likely retirement income in current dollars based upon the one or

11 more input decisions and a recommended set of financial products selected from the set  
12 of financial products that are available to the particular investor for investment;  
13 a step for receiving an updated input decision via one or more of the input objects;  
14 a step for determining one or more new output values based upon the updated  
15 input decision; and  
16 a step for refreshing the set of one or more output values to reflect the one or  
17 more new output values.

1 24. (Original) The method of claim 23, wherein the target retirement age is constrained to be  
2 feasible.

1 25. (Original) The method of 24, wherein the target level of investment risk is received via a  
2 graphical input mechanism.

1 26. (Previously presented) An apparatus comprising:

2 means for displaying one or more input objects in a first portion of a first screen,  
3 the input objects configured to receive one or more input decisions including a financial  
4 goal, from which a recommendation is determined, the recommendation including a  
5 recommended allocation of wealth among a set of available financial products that are  
6 available to a particular investor for investment;

7 means for displaying a set of output values in a second portion of the first screen,  
8 the set of output values including a probability of achieving the financial goal based upon  
9 the recommendation; and

10 means for graphically depicting the recommended allocation of wealth among the  
11 set of available financial products in a second screen.

1 27. (Original) The apparatus of claim 26, wherein the one or more input decisions includes  
2 an indication of a target retirement age.

1 28. (Previously presented) A method comprising the steps of:

2 a step for displaying one or more input objects in a first portion of a first screen,  
3 the input objects configured to receive one or more input decisions including a financial  
4 goal, from which a recommendation is determined, the recommendation including a  
5 recommended allocation of wealth among a set of available financial products that are  
6 available to a particular investor for investment;

7 a step for displaying a set of output values in a second portion of the first screen,  
8 the set of output values including a probability of achieving a financial goal based upon  
9 the recommendation; and

10 a step for graphically depicting the recommended allocation of wealth among the  
11 set of available products in a second screen.

1 29. (Original) The method of claim 28 wherein the one or more input objects includes a  
2 target level of investment risk.

1 30. (Previously presented) A server comprising:

2 a processor; and

3 a memory coupled with the processor to store a financial advisory system;

4 the processor to send information to a client machine to display on the client  
5 machine:

6 one or more input objects in a first portion of a first screen, the input  
7 objects configured to receive one or more input decisions including a financial  
8 goal, from which a recommendation is determined, the recommendation including  
9 a recommended allocation of wealth among a set of available financial products  
10 that are available to a particular investor for investment;

11 a set of output values in a second portion of the first screen, the set of  
12 output values including a probability of achieving a financial goal based upon the  
13 recommendation; and  
14 a graphical depiction of the recommended allocation of wealth among the  
15 set of available financial products in a second screen.

1 31. (Original) The server of claim 30, wherein the one or more input objects includes an  
2 indication of a target level of investment risk, and an indication of a retirement income  
3 goal.

1 32. (Previously presented) A method comprising:

2 concurrently displaying

3 a set of one or more input objects, the input objects to receive one or more  
4 input decisions including an indication of a target retirement age, an indication of  
5 a retirement income goal, and an indication of a target level of investment risk  
6 that is constrained to be within a feasible set of risk that is attainable by a  
7 particular investor via a set of financial products that are available to the  
8 particular investor for investment; and

9 a set of one or more output values, the set of output values including the  
10 most likely value at retirement of a recommended portfolio of one or more  
11 financial products selected from the set of financial products that are available to  
12 the particular investor for investment;  
13 receiving an updated input decision via one or more of the input objects;  
14 determining one or more new output values based upon the updated input  
15 decision; and

16 refreshing the set of one or more output values to reflect the one or more new  
17 output values.



1 33. (Previously presented) The method of claim 32, wherein the target retirement age is  
2 constrained to be feasible.

1 34. (Previously presented) A method comprising:  
2 receiving an indication of a retirement income goal for a particular investor;  
3 displaying a set of one or more input objects within a user interface screen, the  
4 input objects to receive one or more input decisions including an indication of a target  
5 retirement age for the particular investor and an indication of a target level of investment  
6 risk for the particular investor that is constrained to be within a feasible set of risk that is  
7 attainable by the particular investor via a set of financial products that are available to the  
8 particular investor for investment; and  
9 displaying a set of one or more output values within the user interface screen, the  
10 set of output values including an indication of the probability of achieving the retirement  
11 income goal and an indication of the most likely retirement income in current dollars  
12 based upon the retirement income goal, the one or more input decisions, and a  
13 recommended allocation of wealth among one or more financial products of the set of  
14 financial products that are available to the particular investor for investment.

1 35. (Previously presented) The method of claim 34, further comprising displaying a  
2 representation of the recommended allocation of wealth by graphically depicting relative  
3 allocations of wealth among those of the financial products of the set of financial  
4 products included in a recommended portfolio.

1 36. (Previously presented) The method of claim 34, further comprising identifying a  
2 relationship between future returns of each financial product of the set of financial  
3 products and future returns of combinations of one or more factor asset classes of a set of  
4 factor asset classes by determining each financial product's effective asset mix with  
5 respect to the set of factor asset classes.

1 37. (Previously presented) The method of claim 36, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 performing returns-based style analysis.

1 38. (Previously presented) The method of claim 36, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 surveying the underlying assets held in the financial product.

1 39. (Previously presented) The method of claim 36, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 obtaining exposure information based on a target benchmark associated with the financial  
4 product.

1 40. (Previously presented) The method of claim 36, further comprising determining expected  
2 returns and volatility of returns for each of a plurality of efficient portfolios based upon  
3 the relationship and the one or more input decisions, each of the plurality of efficient  
4 portfolios including a combination of one or more of the financial products from the set  
5 of financial products.

1 41. (Previously presented) The method of claim 40, further comprising selecting the  
2 recommended portfolio from the plurality of efficient portfolios by identifying an  
3 efficient portfolio of the plurality of efficient portfolios that maximizes an expected  
4 utility of wealth for the particular investor.

1 42. (Previously presented) The method of claim 36, further comprising:  
2 forecasting returns associated with each core asset class of a set of core asset  
3 classes by generating core asset class scenarios based upon future scenarios of one or  
4 more economic factors with an equilibrium econometric model; and

forecasting returns associated with each factor asset class of the set of factor asset classes by generating factor model asset scenarios based upon the core asset class scenarios.

43. (Previously presented) A method comprising:

receiving an indication of a financial goal of a particular investor;

receiving input decisions that relate to tradeoffs in connection with pursuing the financial goal, the input decisions comprising an indication of a time horizon that is acceptable to the particular investor, an indication of a level of investment risk that is acceptable to the particular investor and that is constrained to be within a feasible set of risk that is attainable by a particular investor via a set of financial products that are available to the particular investor for investment, and an indication of a level of savings that is acceptable to the particular investor;

determining a recommended portfolio of one or more financial products from the set of financial products that are available to the particular investor for investment based upon the input decisions;

determining the probability of the particular investor achieving the financial goal based upon a probability distribution representing a set of possible future portfolio values of the recommended portfolio upon expiration of the time horizon by evaluating the cumulative probability that meets or exceeds the financial goal; and

providing feedback regarding the likelihood of achieving the financial goal in view of the input decisions by displaying an indication of the probability of the particular investor achieving the financial goal in response to receipt of the input decisions.

44. (Previously presented) The method of claim 43, further comprising displaying a representation of the recommended portfolio by graphically depicting allocations of wealth among those of the financial products of the set of financial products included in the recommended portfolio.

1 45. (Previously presented) The method of claim 43, further comprising identifying a  
2 relationship between future returns of each financial product of the set of financial  
3 products and future returns of combinations of one or more factor asset classes of a set of  
4 factor asset classes by determining each financial product's effective asset mix with  
5 respect to the set of factor asset classes.

1 46. (Previously presented) The method of claim 45, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 performing returns-based style analysis.

1 47. (Previously presented) The method of claim 45, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 surveying the underlying assets held in the financial product.

1 48. (Previously presented) The method of claim 45, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 obtaining exposure information based on a target benchmark associated with the financial  
4 product.

1 49. (Previously presented) The method of claim 45, further comprising determining expected  
2 returns and volatility of returns for each of a plurality of efficient portfolios based upon  
3 the relationship and one or more of the input decisions, each of the plurality of efficient  
4 portfolios including a combination of one or more of the financial products from the set  
5 of financial products.

1 50. (Previously presented) The method of claim 49, wherein said determining a  
2 recommended portfolio comprises identifying an efficient portfolio of the plurality of  
3 efficient portfolios that maximizes an expected utility of wealth for the particular  
4 investor.

1 51. (Previously presented) The method of claim 45, further comprising:

2 forecasting returns associated with each core asset class of a set of core asset  
3 classes by generating core asset class scenarios based upon future scenarios of one or  
4 more economic factors with an equilibrium econometric model; and

5 forecasting returns associated with each factor asset class of the set of factor asset  
6 classes by generating factor model asset scenarios based upon the core asset class  
7 scenarios.

1 52. (Previously presented) A method comprising:

2 receiving an indication of a financial goal of a particular investor; and  
3 allowing an end user to interactively explore tradeoffs among time, savings, and  
4 risk and their impact on a probability of the particular investor achieving the financial  
5 goal by

6 displaying one or more input objects in a first portion of a user interface  
7 screen, the one or more input objects being constrained to receive feasible input  
8 decisions relating to variables involved in pursuing the financial goal, the input  
9 decisions comprising an indication of a time horizon that is acceptable to the  
10 particular investor, an indication of a level of investment risk that is acceptable to  
11 the particular investor, and an indication of a level of savings that is acceptable to  
12 the particular investor;

13 determining a recommended portfolio of one or more financial products  
14 from a set of financial products that are available to the particular investor for  
15 investment based upon the input decisions; and

16 displaying a set of output values in a second portion of the user interface  
17 screen, the set of output values comprising an indication of the probability of the  
18 particular investor achieving the financial goal based upon the recommended  
19 portfolio and the time horizon.

1 53. (Previously presented) The method of claim 52 further comprising displaying a  
2 representation of the recommended portfolio by graphically depicting allocations of  
3 wealth among those of the financial products of the set of financial products included in  
4 the recommended portfolio.

1 54. (Previously presented) The method of claim 52, further comprising identifying a  
2 relationship between future returns of each financial product of the set of financial  
3 products and future returns of combinations of one or more factor asset classes of a set of  
4 factor asset classes by determining each financial product's effective asset mix with  
5 respect to the set of factor asset classes.

1 55. (Previously presented) The method of claim 52, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 performing returns-based style analysis.

1 56. (Previously presented) The method of claim 52, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 surveying the underlying assets held in the financial product.

1 57. (Previously presented) The method of claim 52, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 obtaining exposure information based on a target benchmark associated with the financial  
4 product.

1 58. (Previously presented) The method of claim 52, further comprising determining expected  
2 returns and volatility of returns for each of a plurality of efficient portfolios based upon  
3 the relationship and one or more of the input decisions, each of the plurality of efficient  
4 portfolios including a combination of one or more of the financial products from the set  
5 of financial products.

1 59. (Previously presented) The method of claim 58, wherein said determining a  
2 recommended portfolio comprises identifying an efficient portfolio of the plurality of  
3 efficient portfolios that maximizes an expected utility of wealth for the particular  
4 investor.

1 60. (Previously presented) The method of claim 54, further comprising:

2 forecasting returns associated with each core asset class of a set of core asset  
3 classes by generating core asset class scenarios based upon future scenarios of one or  
4 more economic factors with an equilibrium econometric model; and

5 forecasting returns associated with each factor asset class of the set of factor asset  
6 classes by generating factor model asset scenarios based upon the core asset class  
7 scenarios.

1 61. (Previously presented) A method comprising:

2 determining a recommended allocation of wealth among a set of financial  
3 products that are available for investment by a particular investor, the set of financial  
4 products comprising one or more mutual funds, said determining being based upon (a) a  
5 financial goal identified by the particular investor, and (b) input decisions relating to  
6 variables involved in pursuing the financial goal, the input decisions comprising an  
7 indication of a time horizon that is acceptable to the particular investor, an indication of a  
8 level of investment risk that is acceptable to the particular investor, and an indication of a  
9 level of savings that is acceptable to the particular investor; and

10 graphically depicting the recommended allocation of wealth among the one or  
11 more financial products of the set of available financial products.

1 62. (Previously presented) The method of claim 61, further comprising displaying an  
2 indication of a probability of the particular investor achieving the financial goal based  
3 upon the recommended allocation of wealth and the time horizon.

1 63. (Previously presented) The method of claim 61, further comprising identifying a  
2 relationship between future returns of each financial product of the set of financial  
3 products and future returns of combinations of one or more factor asset classes of a set of  
4 factor asset classes by determining each financial product's effective asset mix with  
5 respect to the set of factor asset classes.

1 64. (Previously presented) The method of claim 61, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 performing returns-based style analysis.

1 65. (Previously presented) The method of claim 61, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 surveying the underlying assets held in the financial product.

1 66. (Previously presented) The method of claim 63, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 obtaining exposure information based on a target benchmark associated with the financial  
4 product.

1 67. (Previously presented) The method of claim 63, further comprising determining expected  
2 returns and volatility of returns for each of a plurality of efficient portfolios based upon  
3 the relationship and the one or more input decisions, each of the plurality of efficient  
4 portfolios including a combination of one or more of the financial products from the set  
5 of financial products.

1 68. (Previously presented) The method of claim 67, further comprising selecting a  
2 recommended portfolio from the plurality of efficient portfolios by identifying an  
3 efficient portfolio of the plurality of efficient portfolios that maximizes an expected  
4 utility of wealth for the particular investor.



69. (Previously presented) The method of claim 63, further comprising:

forecasting returns associated with each core asset class of a set of core asset classes by generating core asset class scenarios based upon future scenarios of one or more economic factors with an equilibrium econometric model; and

forecasting returns associated with each factor asset class of the set of factor asset classes by generating factor model asset scenarios based upon the core asset class scenarios.

70. (Previously presented) A method comprising:

identifying a relationship between future returns of each financial product of a set of financial products that are available to a particular investor for investment and future returns of combinations of one or more factor asset classes of a set of factor asset classes by determining each financial product's effective asset mix with respect to the set of factor asset classes;

receiving an indication of a financial goal of a particular investor;

displaying a set of one or more input objects to receive input decisions relating to variables involved in pursuing the financial goal, the input decisions comprising an indication of a time horizon that is acceptable to the particular investor, an indication of a level of investment risk that is acceptable to the particular investor, and an indication of a level of savings that is acceptable to the particular investor;

determining expected returns and volatility of returns for each of a plurality of efficient portfolios based upon the relationship and the input decisions, each of the plurality of efficient portfolios including a combination of one or more of the financial products from the set of financial products;

identifying a recommended portfolio of the plurality of efficient portfolios by selecting an efficient portfolio of the plurality of efficient portfolios that maximizes an expected utility of wealth for the particular investor; and

20 displaying a representation of the recommended portfolio by graphically depicting  
21 relative allocations of wealth among those of the financial products of the set of financial  
22 products included in the recommended portfolio.

1 71. (Previously presented) The method of claim 70, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 performing returns-based style analysis.

1 72. (Previously presented) The method of claim 70, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 surveying the underlying assets held in the financial product.

1 73. (Previously presented) The method of claim 70, wherein said determining each financial  
2 product's effective asset mix with respect to the set of factor asset classes comprises  
3 obtaining exposure information based on a target benchmark associated with the financial  
4 product.

1 74. (Previously presented) The method of claim 70, further comprising:  
2 forecasting returns associated with each core asset class of a set of core asset  
3 classes by generating core asset class scenarios based upon future scenarios of one or  
4 more economic factors with an equilibrium econometric model; and  
5 forecasting returns associated with each factor asset class of the set of factor asset  
6 classes by generating factor model asset scenarios based upon the core asset class  
7 scenarios.

1 75. (Previously presented) The method of claim 70, wherein the financial goal comprises a  
2 retirement income goal.

1 76. (Previously presented) The method of claim 75, wherein the indication of the time  
2 horizon comprises an indication of a target retirement age for the particular investor.

1 77. (Previously presented) The method of claim 76, wherein the set of financial products that  
2 are available to the particular investor for investment comprise those that are available to  
3 the particular investor through one or more defined contribution plans.

1 78. (Previously presented) A method comprising:

2 a step for identifying a relationship between future returns of each financial  
3 product of a set of financial products that are available to a particular investor for  
4 investment and future returns of combinations of one or more factor asset classes of a set  
5 of factor asset classes by determining each financial product's effective asset mix with  
6 respect to the set of factor asset classes;

7 a step for receiving an indication of a financial goal of a particular investor;

8 a step for displaying a set of one or more input objects to receive input decisions  
9 relating to variables involved in pursuing the financial goal, the input decisions  
10 comprising an indication of a time horizon that is acceptable to the particular investor, an  
11 indication of a level of investment risk that is acceptable to the particular investor, and an  
12 indication of a level of savings that is acceptable to the particular investor;

13 a step for determining expected returns and volatility of returns for each of a  
14 plurality of efficient portfolios based upon the relationship and the input decisions, each  
15 of the plurality of efficient portfolios including a combination of one or more of the  
16 financial products from the set of financial products;

17 a step for identifying a recommended portfolio of the plurality of efficient  
18 portfolios by selecting an efficient portfolio of the plurality of efficient portfolios that  
19 maximizes an expected utility of wealth for the particular investor; and

20                   a step for displaying a representation of the recommended portfolio by graphically  
21           depicting relative allocations of wealth among those of the financial products of the set of  
22           financial products included in the recommended portfolio.